

CLAIMS

I/We Claim:

Sub

1. A fiber optic cable connector tray system comprising:
a tray framework with a first end, a second end, a first side and a second side;
a plurality of adapter holders mounted generally longitudinally to the tray framework, the plurality of adapter holders each comprising:
a first adapter mount area configured to receive a first adapter;
a second adapter mount area configured to receive a second adapter;
and
a fiber optic cable passageway between the first adapter mount area and the second adapter mount area.

2. A fiber optic cable connector tray system as recited in claim 1, and further wherein the plurality of adapter holders are configured to receive at least sixteen FC-type adapters.

3. A fiber optic cable connector tray system as recited in claim 1, and further wherein the plurality of adapter holders are configured to receive at least twenty-four FC-type adapters.

4. A fiber optic cable connector tray system as recited in claim 1, and further wherein the adapter holders are configured to receive SC adapters.

5. A fiber optic cable connector tray system as recited in claim 1, and further wherein the first adapter mount area and the second adapter mount area further comprise:

an alignment guide disposed to insert into an aperture in an FC-type adapter when the FC-type adapter is mounted to the adapter mount area; and

a latch configured to secure a first FC-type adapter to the first adapter mount area, and a second latch configured to secure a second FC-type adapter to the adapter holder.

6. A fiber optic cable connector tray system as recited in claim 1, and further wherein the plurality of adapter holders are slidably mounted to the tray framework.

7. A fiber optic cable connector tray system as recited in claim 6, and further wherein the tray system comprises a plurality of base apertures in the base of the tray framework corresponding and adjacent to the plurality of adapter holders, the plurality of base apertures providing access to the plurality of adapter holders through the base.

8. A fiber optic cable connector tray system as recited in claim 1, and further wherein the fiber optic cable adapter holders are mounted at a mount angle less than ninety degrees relative to a base of the tray framework.

9. A fiber optic cable connector tray system as recited in claim 8, and wherein the mount angle is less than ten degrees.

10. A fiber optic cable connector tray system as recited in claim 1, and further comprising a cable storage area on the tray framework, the cable storage area being generally transversely oriented.

11. A fiber optic cable connector tray system as recited in claim 10, and further comprising a splice housing mounted to the tray framework above the cable storage area.

12. A fiber optic cable connector tray system as recited in claim 11, and further wherein the splice housing is pivotally mounted to the tray framework above the cable storage area.

13. A connector tray system as recited in claim 9, and further wherein the plurality of adapter holders are configured to receive at least eight FC-type adapters.

14. A fiber optic cable connector tray system as recited in claim 9, and further wherein the plurality of adapter holders are configured to receive at least twelve FC-type adapters.

15. A fiber optic cable connector tray system as recited in claim 1, and further wherein the plurality of fiber optic cable adapter holders are mounted to the tray framework in a non-linear array.

16. A fiber optic cable connector tray system as recited in claim 1, and further wherein a first of the plurality of fiber optic cable adapter holders is mounted to the tray framework offset from a second of the plurality of adapter holders, and disposed such that a fiber optic cable attached to an adapter on the first of the plurality of adapter holders passes through the passageway on the second of the plurality of adapter holders.

17. A fiber optic cable connector tray system as recited in claim 16, and further wherein a third of the plurality of fiber optic cable adapter

holders is mounted to the tray framework offset from a fourth of the plurality of adapter holders, and disposed such that a fiber optic cable attached to an adapter on the third of the plurality of adapter holders passes through the passageway on the fourth of the plurality of adapter holders.

18. A fiber optic cable connector tray system as recited in claim 16, and further wherein a fifth of the plurality of fiber optic cable adapter holders is mounted to the tray framework offset from a sixth of the plurality of adapter holders, and disposed such that a fiber optic cable attached to an adapter on the fifth of the plurality of adapter holders passes through the passageway on the sixth of the plurality of adapter holders.

19. A fiber optic cable connector tray comprised of:
a tray framework with a first end, a second end, a first side and a second side;
a plurality of adapter holders mounted generally longitudinally to the tray framework, the plurality of adapter holders each comprising:
a first adapter mount area configured to receive a first adapter, the first adapter mount area including an alignment guide disposed to insert

into an aperture in the first adapter when the adapter is mounted to the framework;

a second adapter mount area configured to receive a second adapter, the second adapter mount area including an alignment guide disposed to insert into an aperture in the second adapter when the adapter is mounted to the framework;

a first latch configured to secure the first adapter to the first adapter mount area, and a second latch configured to secure the second adapter to the framework; and

a fiber optic cable passageway between the first adapter mount area and the second adapter mount area;

wherein a first one of the plurality of adapter holders is mounted offset from a second one of the plurality of adapter holders, and disposed such that a fiber optic cable connected to the first one of the plurality of adapter holders may be routed through the fiber optic cable passageway of the second one of the plurality of adapter holders.

20. A fiber optic cable connector tray as recited in claim 19, and further comprised of a plurality of tray framework apertures adjacent the plurality of fiber optic cable adapter holders mounted to the tray framework, and through which the adapter holders may be accessed from below the framework.

21. A fiber optic cable connector tray as recited in claim 19, and further wherein the fiber optic cable adapter holders are mounted at an angle relative to a plane perpendicular to the framework.

22. A fiber optic cable connector tray as recited in claim 21, and wherein the angle is less than ten degrees.

23. A fiber optic cable adapter holder comprised of:

- a first adapter mount area configured to receive a first FC-type adapter, the first adapter mount area including an alignment guide disposed to insert into an aperture in the first FC-type adapter when the adapter is mounted to the framework;
- a second adapter mount area configured to receive a second FC-type adapter, the second adapter mount area including an alignment guide disposed to insert into an aperture in the second FC-type adapter when the adapter is mounted to the framework; and
- a first latch configured to secure the first FC-type adapter to the first adapter mount area, and a second latch configured to secure the second FC-type adapter to the framework; and
- a fiber optic cable passageway between the first adapter mount area and the second adapter mount area.

24. A fiber optic cable adapter holder for use in combination with an FC adapter, the adapter holder comprised of:

a first adapter mount area on the framework configured to receive a first FC-type adapter, the first adapter mount area including an alignment guide disposed to insert into an aperture in the first FC-type adapter when the adapter is mounted to the framework;

a first latch configured to secure the first FC-type adapter to the first adapter mount area; and

wherein the holder framework has a width which is less than or equal to the FC-type adapter width.

25. A fiber optic cable adapter holder as recited in claim 24, and wherein the holder framework is further comprised of:

a second adapter mount area on the holder framework configured to receive a second FC-type adapter abutting the first adapter, the second adapter mount area including an alignment guide disposed to insert into an aperture in the second FC-type adapter when the adapter is mounted to the framework; and wherein the holder framework has a width which is less or equal to the first FC-type adapter and the second FC-type adapter abutted together.

26. A fiber optic cable adapter holder as recited in claim 24, and wherein the holder framework is further comprised of:

a second adapter mount area on the framework configured to receive a second FC-type adapter, the second adapter mount area including an alignment guide disposed to insert into an aperture in the second FC-type adapter when the adapter is mounted to the framework;

a fiber optic cable passageway between the first adapter mount area and the second adapter mount area; and

wherein the holder framework has a width which is less than or equal to the sum of widths of the first FC-type adapter, the second FC-type adapter and the fiber optic cable passageway.

27. A fiber optic cable adapter holder comprised of:

 a first adapter mount area configured to receive a first FC-type adapter, the first adapter mount area including an alignment means to position the first FC-type adapter when it is mounted to the framework;

 a second adapter mount area configured to receive a second FC-type adapter, the second adapter mount area including an alignment means to position the second FC-type adapter when it is mounted to the framework;

 and

 a first attachment means to secure the first FC-type adapter to the first adapter mount area, and a second attachment means to secure the second FC-type adapter to the framework.

28. A fiber optic cable adapter holder as recited in claim 27, and further comprised of a fiber optic cable passageway between the first adapter mount area and the second adapter mount area.